

CLAIMS

1. A process for the preparation of a compound of formula
$$\text{HO-A-ONO}_2 \quad (\text{I}),$$
wherein A is a C₂-C₆ alkylene chain,comprising the nitration of a compound of formula
$$\text{HO-A-OH} \quad (\text{II}),$$
wherein A is as defined above,with "stabilised" nitric acid.
2. A process as claimed in claim 1, wherein the compound of formula (I) is ethanediol-mononitrate; 1,3-propanediol-mononitrate; 1,4-butanediol-mononitrate; 1,5-pentanediol-mononitrate or 1,6-hexanediol-mononitrate.
3. A process according to any one of claims 1 or 2, wherein the "stabilised" nitric acid has a concentration ranging from 83 to 85% and is substantially free from nitrous acid and nitrogen oxides.
4. A process according to any one of claims 1-3, wherein the reaction is carried out in a water-immiscible chlorinated organic solvent.
5. A process as claimed in claim 4, wherein the chlorinated organic solvent is a mono-, di-, tri- or tetra-chloro C₁-C₄-alkyl hydrocarbon.
6. A process according to any one of claims 1-5, wherein the weight ratio of "stabilised" nitric acid to the compound of formula (II) ranges from 10 : 1 to 15 : 1.
7. A process according to any one of claims 1-5, wherein the nitration is carried out for a time ranging from 10 to 30 minutes.
8. A process according to any one of claims 1-7, wherein the compound of formula (II) is 1,4-butanediol and the weight ratio of "stabilised" nitric acid to butanediol ranges from 11: 1 to 14.5: 1.
9. Nitration mixture in a water-immiscible organic chlorinated solvent

comprising a compound of formula (I), as obtainable by the process of claim 1.

10. "Stabilised" nitric acid characterized in that it has a concentration ranging from 83 to 85% and is substantially free from nitrous acid and nitrogen oxides.

11. Process for the preparation of "stabilised" nitric acid comprising the dilution of fuming nitric acid with water to a concentration of about 83 - 85% and treatment with urea or sulfamic acid, in amount ranging from 0.3 to 1% w/w, for a time ranging from 80 to 130 minutes.